

COURSE NUMBER: FHWA-NHI-137001**COURSE TITLE:** ITS Awareness Seminar

This course is also available as a Web-based course at the Consortium for ITS Training and Education (CITE) located at www.citeconsortium.org/registration.html

This course provides an overall understanding of Intelligent Transportation Systems (ITS) and the ITS infrastructure. The course illustrates the ITS infrastructure components by showcasing those systems that are deployed around the country and discussing multimodal systems that will benefit from the use of the ITS infrastructure. Institutional and technical issues involved in deploying ITS infrastructure are also presented. Topics covered include planning, design, architecture, standards, procurement, installation and construction, operation and maintenance, and funding of ITS systems. The benefits associated with various types of ITS deployment are presented and explained.

The one-hour executive summary developed for elected and appointed officials may be requested through the National Resource Center, or the FHWA Division. Questions concerning this offering should be addressed to the technical information contact.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Define ITS by discussing the elements, functions, and benefits of ITS
- Identify essential stakeholders and the need for interaction between them
- Explain the importance of integrating systems throughout a region
- Compare and contrast two case studies of ITS deployments
- Identify information resources, such as Web sites, other training, or data libraries, for more information on ITS

TARGET AUDIENCE:

This course is intended for traffic engineers, State, Federal and local transportation planners, metropolitan planning organizations (MPOs), transit and highway operators, public safety responders (enforcement, fire, EMS, towing, public works), transportation management center (TMC) specialists, motor carrier managers, environmental groups, IT personnel, college and university faculty and students, consultants and contractors. Other groups belong in the audience as well, namely on the "technical/professional" side: ITS (and even nontraditional ITS) vendors, practitioners in ITS-related fields, such as those in financial, marketing, media and others who are increasingly valued ITS partners. Executives and managers, elected officials, and the general public will be served well by the executive summary specified in the course description.

FEE: \$200 Per Participant

LENGTH: 1.0 Days (CEU: 0.6 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: Ron Giguere • (202) 366-2203 • ron.giguere@fhwa.dot.gov



A list of NHI contacts is located on the inside front cover of this catalog.

COURSE NUMBER: FHWA-NHI-137002**COURSE TITLE:** Deploying Integrated ITS - Metropolitan

This course is part of the core Intelligent Transportation Systems (ITS) curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

This course supports integrated intelligent transportation system infrastructure deployment with consideration of the National ITS Architecture. The regional context in which the public components of ITS infrastructure will be implemented and integrated is emphasized. The course combines the technical and institutional components of integrated ITS infrastructure. The importance of each component is discussed and placed in context with the regional decision that must be made by State and local agencies.

Transportation program managers will obtain an understanding of the technical and institutional implications for deploying integrated infrastructure within the framework of a regional architecture.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Identify the needs that can be addressed by ITS strategies
- Select the best practices for planning and programming integrated ITS in a metropolitan area
- Relate the need for a Regional Architecture and use of standards to ensure integrated ITS deployment
- Select the best practices for ITS project planning, design, construction, and implementation
- Explain the systems engineering approach to ITS project implementation
- Describe the use of a "concept of operations" to plan for integrated systems
- Identify typical costs and benefits of different types of ITS deployments

TARGET AUDIENCE:

This course is intended for State agencies, metropolitan planning organizations (MPOs) and city/local/county transportation professionals who implement ITS deployment schedules as part of the planning process, deal with public safety, plan for highway and transit; ITS specialists who provide information or recommendations in operations; and those who fulfill regulations (oversight), manage ITS or operations providers, coordinate projects and programs, review specifications, develop regulations and specifications, and design systems; engineers; regional architecture developers; systems integrators; and private sector people associated with these tasks.

FEE: \$270 Per Participant

LENGTH: 2.0 Days (CEU: 1.2 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: Barry Zimmer • (202) 366-4082 • barry.zimmer@fhwa.dot.gov

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COURSE NUMBER: FHWA-NHI-137005

COURSE TITLE: ITS Telecommunications Overview

This course is part of the core Intelligent Transportation Systems (ITS) curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

This course provides a broad introduction to telecommunications technologies, the associated issues, and practical lessons learned in the applications for such technologies of ITS.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Recognize and deal with the current issues associated with the deployment and application of telecommunications infrastructure within the context of transportation project development, design, operations, and management
- Plan and conduct a requirements analysis to match devices and components to telecommunications technologies
- Make use of regional ITS architectures for telecommunications planning
- Explain the fundamentals of telecommunications at a basic level
- Define some of the key terminology and concepts used in transportation telecommunications
- Generalize a frame of reference to help in identifying and defining the institutional and organizational issues associated with the effective use of telecommunications technology in an advanced transportation context

TARGET AUDIENCE:

Public and private-sector transportation professionals (project planners, engineers, managers, and senior technicians) involved in ITS transportation planning and ITS deployment, such as MPOs transit agencies, municipalities, State highway agencies, FHWA Division and Resource Center offices, FTA personnel, and systems integrators.

FEE: \$200 Per Participant

LENGTH: 1.0 Days (CEU: 0.6 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: William S. Jones • (202) 366-2128 • william.s.jones@fhwa.dot.gov



An FHWA Divisions and State Highway Agencies contact list is located on page 183.

COURSE NUMBER: FHWA-NHI-137007**COURSE TITLE:** Rural ITS Toolbox

This course is part of the core Intelligent Transportation Systems (ITS) curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

This course describes many ITS-related practices and techniques that have been successfully applied to rural transportation problems. These successes are documented in the Rural ITS Toolbox (Toolbox). The training goes further into what is provided in the Toolbox, including problem solving techniques and training for the participant to describe the Toolbox contents to their stakeholders. The Rural ITS Toolbox training will be helpful to identify ITS solutions that can have a low-cost/high-return impact on rural transportation.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Define ITS by discussing the elements and functions of ITS
- Comprehend the value of the Rural ITS Toolbox for articulating rural ITS deployment strategies
- Discuss local examples of regional ITS projects
- Explain the benefits of rural ITS
- Recognize the need to identify stakeholders and the importance of fostering interaction among them
- Identify information resources, such as Web sites, other training, data libraries, etc., for more information on ITS
- Tailor portions of the Rural ITS Toolbox for presentation/discussion with other rural stakeholders so that they recognize their roles in rural ITS deployment

TARGET AUDIENCE:

County, municipal, and town executives; traffic engineers; State, Federal, and local transportation planners; MPOs' transit and highway operators; public safety responders (enforcement, fire, EMS, towing, public works); Transportation Management Center (TMC) operators; motor carrier managers; environmental groups; IT personnel; college and university faculty and students; and consultants and contractors.

FEE: \$200 Per Participant

LENGTH: 1.0 Days (CEU: 0.6 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: James Pol • (202) 366-4374 • james.pol@fhwa.dot.gov

You don't need to be a government agency to host a course.
For instructions on how to host a course, please see page 7.



COURSE NUMBER: FHWA-NHI-137013
COURSE TITLE: Deploying the National Intelligent Transportation System (ITS) Architecture



This course is part of the core Intelligent Transportation Systems (ITS) curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

This course is designed to be an interactive workshop to demonstrate how to apply the National ITS Architecture tools and methodologies when developing regional and project ITS architecture. A copy of the National ITS Architecture 4.0 is provided on CD-ROM for course use and student retention.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Use the National ITS Architecture as a tool when developing regional and project ITS architectures
- Identify integration opportunities while developing regional and project ITS architectures
- Use the National ITS Architecture CD-ROM to find definitions
- Identify the difference between user service and user service requirements, and describe how these relate to the National ITS Architecture
- Identify the types of projects that must comply with USDOT policies regarding consistency with ITS architecture and standards, and describe the key requirement for compliance
- Define the systems engineering process as it is used with the National ITS Architecture

TARGET AUDIENCE:

Public-sector audiences involved in ITS planning and deployment, as well as systems integrators and private-sector transportation professionals who develop ITS solutions.

FEE: \$270 Per Participant

LENGTH: 2.0 Days (CEU: 1.2 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: Pam Kordenbrock • (505) 820-2023 • pamela.kordenbrock@fhwa.dot.gov



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COURSE NUMBER: FHWA-NHI-137015 Web-Based **COURSE TITLE:** Introduction to National ITS Architecture

This Web-based course is approximately 6 hours long and is available 24 hours a day, 365 days a year via the Internet. This course is available at the Consortium for ITS Training and Education (CITE) located at www.citeconsortium.org/registration.html. Please go to the CITE Web site to register for the course.

The course is intended to provide students with a broad overview of the National ITS Architecture and the role it plays in ITS planning, designing, and implementation processes. It provides some background (what the National ITS Architecture consists of, how it is defined, why it was established, and what its aims and objectives are) and introduces the notion of user service. The physical architecture is explained using examples of local implementations of the National ITS Architecture. Specific elements of the physical architecture, such as subsystems and terminators, are presented in some detail.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Define the systems engineering process, as it is used with the National ITS Architecture
- Develop an understanding of the context within which the architecture is to be applied to the ITS planning, design, and implementation process
- Disseminate updated information on the evolving standards and protocols being developed to support the architecture
- Recognize the content and procedures associated with the National ITS Architecture

TARGET AUDIENCE:

Public-sector audiences involved in ITS planning and deployment, as well as systems integrators and private-sector transportation professionals who develop ITS solutions.

FEE: \$100 Per Participant

LENGTH: 6.0 Hours (CEU: 0.6 Units)

CLASS SIZE: Minimum: N/A; Maximum: N/A

Deborah Gwaltney • (202) 366-9379 • debbie.gwaltney@fhwa.dot.gov

Technical Information: Ron Giguere • (202) 366-2203 • ron.giguere@fhwa.dot.gov

Got questions?
Contact the NHI Training Team for more information.



COURSE NUMBER: FHWA-NHI-137019

COURSE TITLE: ITS Software Acquisition

This course is part of the core Intelligent Transportation Systems (ITS) curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

This course provides a general understanding of the many issues involved in ITS software development and acquisition processes. It is focused specifically on ITS software issues. It is also a companion course to FHWA-NHI-137020, ITS Procurement.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Describe the basic technologies used in software development
- Describe the private sector view of software development
- Describe the intellectual property rights and how they must be considered
- Manage the procurement of ITS software
- Write a Request for Proposal for software procurement
- Describe quality assurance issues

TARGET AUDIENCE:

Federal, state, and local transportation professionals who are involved in the planning, decision making, and implementation of ITS projects which have a significant software component, or who are involved in coordinating these ITS projects.

FEE: \$270 Per Participant

LENGTH: 2.0 Days (CEU: 1.2 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: William S. Jones • (202) 366-2128 • william.s.jones@fhwa.dot.gov



See page 178 to find out more about the Universities and Grants Programs.

COURSE NUMBER: FHWA-NHI-137020**COURSE TITLE:** Intelligent Transportation System (ITS) Procurement

This course is part of the core Intelligent Transportation Systems (ITS) curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

Deployment of ITS introduces new challenges to State and local transportation agencies that operate under traditional procurement practices developed to support the design and construction of roads and bridges or to design and construct rail projects. The traditional practices do not readily accommodate the special needs of ITS procurement that is focused on operations. For this reason, the transportation professional must recognize the special considerations required in ITS procurements, and understand how they can be accommodated. This seminar is intended to heighten awareness of the challenges in procuring ITS within the traditional construction project environment. It combines lectures with presentations of case studies to describe the lessons learned from past ITS projects and to help ensure successful ITS procurement. This seminar is a companion to, but not a prerequisite for FHWA-NHI-137019 ITS Software Acquisition.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Describe the nature of intelligent transportation systems and explain why procuring intelligent transportation systems is different from traditional construction procurements
- Describe the potential barriers that may arise from procuring intelligent transportation systems within the traditional construction- oriented environment
- Describe lessons learned from previous ITS projects
- Apply innovative contracting mechanisms and flexibilities in existing regulations to mitigate barriers
- Apply lessons learned to existing policies and procedures to achieve improvements in procuring intelligent transportation systems

TARGET AUDIENCE:

Federal, State, and local transportation professionals who are directly involved in procuring ITS systems. Specifically, those personnel who are responsible for developing and reviewing statements of work for ITS procurement, including program managers, contracting officers, and attorneys.

FEE: \$200 Per Participant

LENGTH: 1.0 Days (CEU: 0.6 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: William S. Jones • (202) 366-2128 • william.s.jones@fhwa.dot.gov

You don't need to be a government agency to host a course. For instructions on how to host a course, please see page 7.



COURSE NUMBER: FHWA-NHI-137022**COURSE TITLE:** CORSIM Traffic Simulation Model Training

The hosting organization is responsible for providing computers with the following minimum requirements: 200 MHz Intel Pentium II Processor or equivalent with 64 MB RAM, Windows 95 (SR-1) or NT 4.0 with Service Pack 6a, color monitors, 50 MB of available disk space. NOTE: Maximum of two participants per terminal.

This course provides an understanding of CORSIM - a tool that simulates traffic and traffic control conditions on combined surface street and freeway networks. CORSIM determines how traffic engineering and control strategies impact a prescribed network's operational performance, as expressed in terms of various measures of effectiveness (MOEs). The MOEs (such as speed, travel time, volume, and delay) provide insights into the effects of the applied strategy on traffic operations and provide the basis for optimizing the applied strategy. CORSIM, the simulation package within the Traffic Software Integrated System (TSIS) suite of tools, is a powerful tool that can be applied to wide areas of interest including:

1. Practical traffic engineering activities such as signal retiming, traffic impact studies, analysis of major traffic events, stadium operations, corridor traffic operations, and freeway incident impacts
2. Evaluating ITS technologies, such as real time traffic adaptive control, real time traveler information and route guidance, and network-wide dynamic traffic assignment

OUTCOMES:

Upon completion of the course, participants will be able to:

- Describe CORSIM features (including advantages and disadvantages)
- Determine appropriate uses for CORSIM
- Identify types and sources of data
- Given real-world data, prepare a link-node diagram, then code for input to CORSIM
- Input data, run CORSIM, and interpret output for arterial, freeway, and combined networks
- Identify circumstances and procedures for calibrating models
- Interpret and fix common error messages
- Use CORSIM to simulate traffic improvements

TARGET AUDIENCE:

Traffic engineers in the public and private sectors, as well as in academia, who are involved in ITS planning and deployment.

FEE: \$400 Per Participant

LENGTH: 3.0 Days (CEU: 1.8 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: John Halkias • (202) 366-2183 • john.halkias@fhwa.dot.gov



Need to find a FHWA Division or State Highway Agency contact? See the contact list on page 183.

COURSE NUMBER: FHWA-NHI-137024**COURSE TITLE:** Introduction to Systems Engineering for Advanced Transportation

This course is part of the core Intelligent Transportation Systems (ITS) curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

This course is an introduction to systems engineering for ITS project managers and project staff. It provides a high-level view of a broad and rich topic area, introducing basic concepts to individuals who are working on ITS projects. The goal is to allow these individuals to understand the benefits of applying systems engineering approaches as a means of developing quality systems. The course covers technical practices such as modeling, prototyping, trade-off analysis and testing, and management practices such as risk assessment and mitigation, which make up "best practices" in the systems engineering arena. A combination of lecture and classroom exercises, with transportation systems examples, is used to illustrate the basic concepts and to introduce the topics to students.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Define systems engineering and its application to ITS
- Describe the system's life cycle and its relationship to systems engineering
- Develop, derive, and validate requirements for a system
- List the systems engineering tools available to mitigate risk
- Define and apply the concept of earned value as a tracking mechanism
- List three alternative strategies that may be applied to decision making under uncertainty
- Identify where to find appropriate standards for developing ITS projects
- Identify resources that may help project personnel to look at systems as a whole

TARGET AUDIENCE:

Transportation engineers and other practicing ITS professionals or technical persons at all levels of government and in the private sector. ITS project managers, technical team members, contractors, and staff are all appropriate participants. Project managers would particularly benefit from it since they direct the efforts of many people. Professionals involved in ITS at any level may attend to broaden their understanding of complex systems beyond current technical knowledge.

FEE: \$270 Per Participant

LENGTH: 2.0 Days (CEU: 1.2 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: Ron Giguere • (202) 366-2203 • ron.giguere@fhwa.dot.gov

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COURSE NUMBER: FHWA-NHI-137026
COURSE TITLE: Managing High Technology Projects in Transportation



This course is also available as a Web-based course at the Consortium for ITS Training and Education (CITE) located at www.citeconsortium.org/registration.html.

This course is part of the core Intelligent Transportation Systems (ITS) curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

The course is designed to improve project management skills of both public and private-sector personnel who are responsible for managing the implementation of technology-intensive transportation projects. The course provides training related to the fundamental principles and practices of good project management; the steps to be taken for the planning, design and implementation of transportation systems projects; the types of project management tools available for managing transportation systems projects; and the basic skills required to be a good project manager.

This course covers project management techniques associated with all phases of system acquisition, from planning through acceptance. The skills required for the ongoing operation and maintenance of systems that are somewhat different are not explicitly covered in this course.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Describe why tailored project management techniques are critical to success in managing advanced transportation projects
- Define key components in planning the project
- Identify the primary participants that need to be involved throughout the development of a project
- Identify the stages of the process and the management tools that are applicable at each stage
- Identify and describe key general management skills that are applicable to managing projects for advanced transportation systems

TARGET AUDIENCE:

Current and prospective project managers from State DOTs and State and local transportation agencies, as well as those in the private sector who support the implementation of advanced transportation projects.

FEE: \$270 Per Participant

LENGTH: 2.0 Days (CEU: 1.2 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: Pam Kordenbrock • (505) 820-2023 • pamela.kordenbrock@fhwa.dot.gov

FHWA Mission – Enhancing mobility through innovation, leadership, and public service.



COURSE NUMBER: FHWA-NHI-137029A

COURSE TITLE: Turbo Architecture Software Training



The hosting organization is responsible for providing computers with the following minimum requirements: at least 400MHz CPU, 64 MB of RAM, 150MB hard-disk space available, external mouse, CD-ROM drive, and Diskette Drive (1.44MB); Windows 98SE, 2000, or XP; and Workstation monitors configured for 1024x768 resolution. NOTE: Maximum of two participants per terminal.

This course provides training on the Turbo Architecture tool, which is a high-level, interactive software training program to assist transportation planners and systems integrators in the development of regional and project architectures using the National Intelligent Transportation Systems (ITS) Architecture as a starting point. Turbo Architecture helps users integrate multiple project architectures both with each other and with a regional architecture. In addition, Turbo Architecture provides an initial start toward both architecture development and consistency with the National ITS Architecture.

PREREQUISITES:

1. Windows skills - The ability to traverse directories, open/close/resize/minimize windows, switch between open windows, and launch and navigate browser
2. ITS knowledge - Knowledge of common ITS concepts and terminology
3. Architecture knowledge - The ability to translate all ITS elements in their region into architecture entities (subsystems, terminators, architecture flows), and to translate their regions' transportation services into market packages
4. National ITS Architecture CD-ROM skills - Proficiency in using the architecture CD to find information on subsystems, terminators, architecture flows and market packages

OUTCOMES:

Upon completion of the course, participants will be able to:

- List the preparatory decisions and assembly of information needed to create a Regional Architecture or a Project Architecture
- Describe the six steps in the process used by Turbo Architecture to create a Regional Architecture or Project Architecture
- Use Turbo Architecture software to create and modify a simple Regional Architecture or Project Architecture, including entering inventory data, selecting Market Packages, reconciling inventory inconsistencies, building the architecture, customizing interconnects and architecture flows, and printing reports and diagrams
- Merge a Project Architecture with a Regional Architecture database
- Describe in general terms how to extend the Regional or Project Architecture by adding architecture flows, subsystems and terminators beyond those defined by the National ITS Architecture

TARGET AUDIENCE:

State DOT and local-agency staff from metropolitan planning organizations (MPOs) and city/county transportation agencies, as well as private sector consultants, who are developing Regional and Project Architectures. Their responsibility is to assemble ITS inventory data for their regions or for their projects, and to use Turbo to build and customize their regional or project architectures.

FEE: \$270 Per Participant

LENGTH: 2.0 Days (CEU: 1.2 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: Robert Rupert • (202) 366-2194 • robert.rupert@fhwa.dot.gov

COURSE NUMBER: FHWA-NHI-137042

COURSE TITLE: Configuration Management (CM) for Traffic Management Systems

Configuration management (CM) is the practice of handling changes systematically so that a system maintains its integrity over time. CM involves the policies, procedures, techniques, and tools to manage, evaluate proposed changes, track the status of changes, and maintain an inventory of system and support documents as the system changes. The need for and use of CM plans has increased significantly as a result of the rapid deployment of ITS projects and the development of traffic management systems. Many agencies are unaware of the need for, importance, and value of CM programs and plans to the continued operation and maintenance of their systems.

OUTCOMES:

Upon completion of the course, participants will be able to:

- Discuss the potential benefits and value of CM
- Describe how CM supports the management and operation of traffic management systems
- Identify the role and potential CM applications have in relation to traffic management systems
- Explain the differences between maintenance, testing and acceptance procedures, and CM
- Discuss the key CM issues to consider for field devices, traffic control software, agency, and regional applications
- Identify the types of CM tools that are available and their potential applications

TARGET AUDIENCE:

This course is designed for any individual who is engaged with, or responsible for, the planning, design, implementation, management, operation, or maintenance of transportation management systems. The course is suited for managers, supervisors, technical specialists (e.g., system engineers, designers, telecommunications, IT personnel, software engineers, etc.), and technicians who are directly involved with integrating the consideration of CM into the activities. These individuals may be from MPOs, TMCs, municipalities, counties, state DOTs, FHWA (e.g., Divisions or Resource Centers), colleges or universities, contractors or consultants.

FEE: \$270 Per Participant

LENGTH: 2.0 Days (CEU: 1.2 Units)

CLASS SIZE: Minimum: 20; Maximum: 30

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov

Technical Information: Jon Obenberger • (202) 366-2221 • jon.obenberger@fhwa.dot.gov

Web conferencing allows individuals to conduct live interactive presentations, demonstrations, meetings, classes, or training sessions via the Internet while simultaneously communicating through an audio conference bridge.

Contact Debbie Gwaltney at (202) 366-9379 or debbie.gwaltney@fhwa.dot.gov for program assistance.

